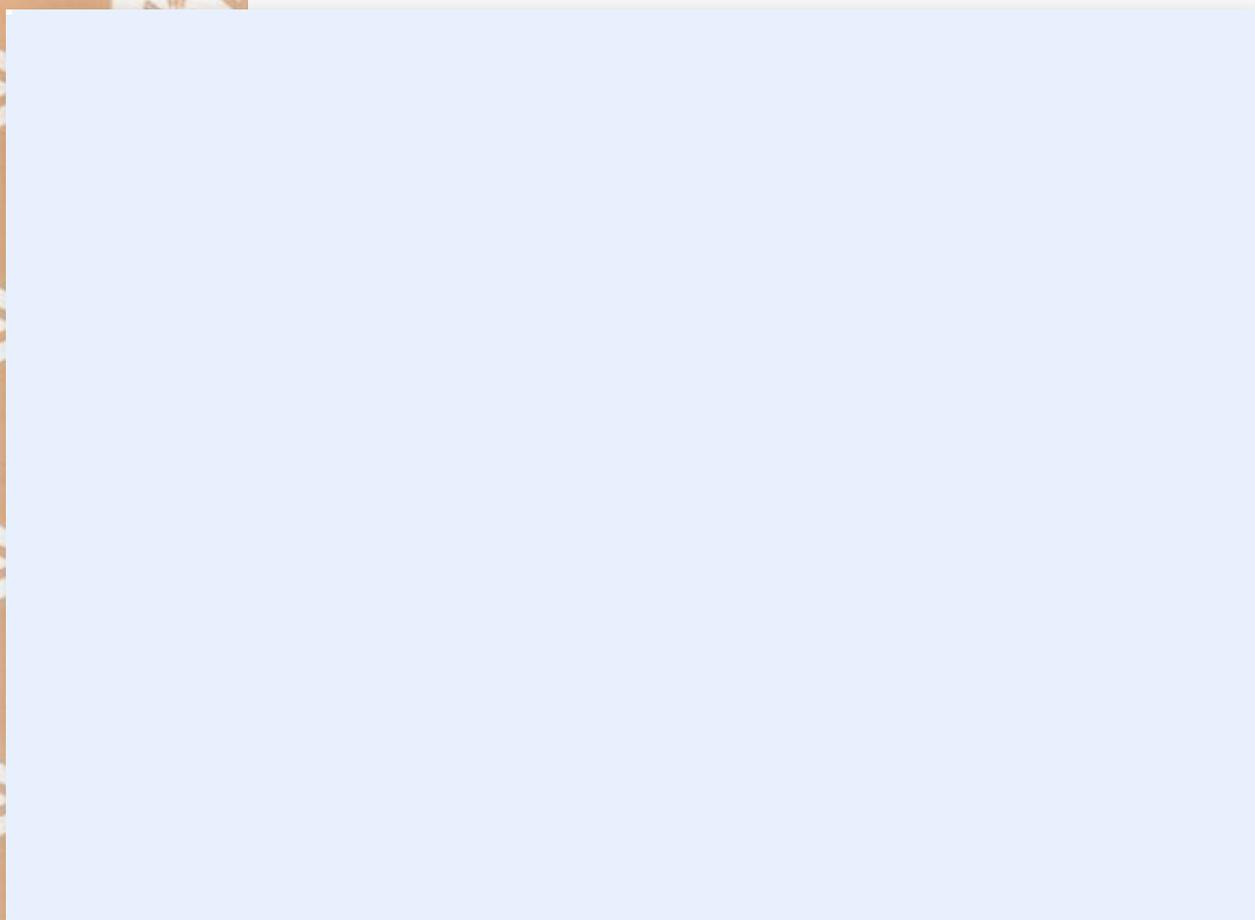


Training Series on Agrometeorology and Climate Change Adaptation

Raising Tilapia in Your Own Backyard



The tilapia fish species is a native of Africa and was introduced in many other countries. Tilapia is now widely distributed around the world. It has become the mainstay of many small-scale aquaculture projects in many developing countries, including the Pacific region. Tilapia is a good quality food and has a firm and delicious flesh. It is also suitable for processing into dried, salted, smoked or pickled products. This guide briefly describes how to raise tilapia at your own backyard using 200-liter plastic drums. Other containers found in the house such as old refrigerators, fiberglass tanks or even large washing dishes can also be used.

Did you know?

Tilapia is a good insect and worm predator and is known to help clean many injurious insects from ponds. To a certain extent, tilapia can help in keeping down the number of mosquito larvae, thus preventing them from developing into troublesome and harmful mosquitoes.

Species of tilapia in Vanuatu

Tilapia was first introduced into many Pacific island countries between 1950's to 1960's to control mosquitoes that are spreading Malaria.

There are many tilapia species but only a few are cultured widely around the world today. There are two main tilapia species raised in the Pacific region. Hybrids and improved breeds from these two species are also now found in the region.



Oreochromis niloticus



Oreochromis mossambicus



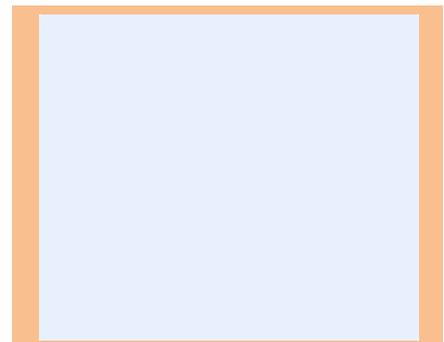
Hybrids and improved breeds

Contact your local Department of Fisheries for sources of fish fingerlings

Setting up your farm at home

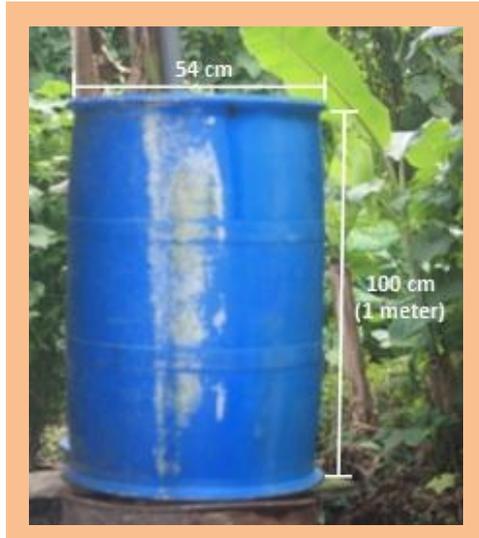
Site selection:

- Select a site where water is accessible throughout the year.
- Containers should get enough sunlight to allow growth of small aquatic plants (algae) which will serve as food for the fishes.
- Place containers in a site where it can collect some rain water but protected from heavy downpour which may cause overflowing.



Preparation of drums:

- Choose a large barrel or drum that is not less than a meter deep and with a large surface area.
- A drum about 100 cm high and 54 cm wide (200-liter) can grow 20 fishes.
- Drill small holes at the top edge of the drum or barrel above your desired waterline to reduce the chance of overflowing during heavy rain.
- Add rocks and gravel as well as floating and submerged plants.
- Add a small shovel-full of natural manure to your drum. Chicken manure works well.
- Fill the drum with freshwater. Rain water or underground water can be used to raise tilapia.
- Let the water-filled drum stand for one week to dechlorinate and settle.



Stocking rate is maximum of 20 fish per 200 liter container or average of 1 fish per ten liter of water.



Tilapia farm set up using household containers.

Stocking

- Make sure the drums are clean from dirt, unwanted weeds and fishes.
- Maintain a 1 fish per ten liter of water.
- Stock the drums either early in the morning or late in the afternoon when the water temperature is low so as not to stress and weaken the fish.
- Allow the water in the drum to mix gradually with the water in the fish container before putting the fish into the pond.

Feeding your fishes

- Tilapia thrives well on aquatic bugs, algae and plants.
- When preparing your containers for stocking, apply chicken manure at the bottom of the drum with depth of about six centimeters.
- Fertilize drums one week before stocking to encourage growth of algae which will be the food for the growing fishes.
- Maintain algal growth using a bag filled with leaves, manure and scraps.
- Fertilize the drums once a month to ensure good production of algae.

Remember this!

- ✚ Tilapia fishes are also considered as an invasive species in many areas.
- ✚ Check with your Fisheries Department Officers to make sure there are no restrictions on raising them in your areas.
- ✚ Never release your fishes into streams, rivers and lakes.

Harvesting

Using dip net or lift net

- Harvesting can be done after 5 months after stocking.
- Select a net that will fit the opening of your drum.
- Lower down the net to scoop out the fishes.

When do you harvest?

- Generally, harvesting is done 5 months after stocking.
- Fishes are mature when they are about 10 cm long.

The growth of the fishes becomes stunted as the supply of natural food organisms in the drum is depleted. This may not be a big concern if you are growing your fishes for personal consumption. However, if larger fishes are preferred, special culture techniques will be necessary to grow them. These technologies require different levels of skill and management and yield varying degrees of success. Several techniques may be combined for efficiency in resource use. It will also help if you visit families and neighbors who are growing tilapia before you start your own tilapia farming.

*This training guide was prepared by the **National Advisory Board on Climate Change and Disaster Risk Reduction** and **Vanuatu Department of Meteorology and Geo-Hazards** in cooperation with **SPC/GIZ Coping with Climate Change in the Pacific Island Region** with funding support from the **EU Global Climate Change Alliance**.*



NATIONAL ADVISORY BOARD
on Climate Change and Disaster Risk Reduction

Where can I get advice?

- For more information on Climate Change & Disaster policy, projects and activities, contact: **National Advisory Board on Climate Change & Disaster Risk Reduction (NAB)**
Private Mail Bag 9054, Port Vila Tel: (678) 2231;
Fax: (678) 22310
Web: www.nab.vu; Email: commp@meteo.gov.vu
- For more information on Climate Change Science, contact: **Climate Section** of the **Vanuatu Meteorological and Geohazards Department (VMGD)**
Tel: (678) 24686
- For more information on Tilapia Farming, contact: **Department of Fisheries**
PO Box 211, Luganville Santo, Vanuatu
Tel: (678) 36218 Fax: (678) 36155